IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	Edward Hendry BAKER, et al.
Title:	VIDEO DATA COMMUNICATION SYSTEM FOR MOBILE OBJECTS ON A RACE TRACK
Appl. No.:	09/623439
Filing Date:	12/4/2000
Examiner:	Lee, Y. Young
Art Unit:	2621
Confirmation No.:	3867

PRE-APPEAL BRIEF REQUEST FOR REVIEW

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Sir:

In accordance with the **Pre-Appeal Brief Conference Pilot Program**, announced July 11, 2005, this Pre-Appeal Brief Request is being filed. A Notice of Appeal is being filed concurrently herewith.

Independent claim 1 is directed to a system for providing continuous reception of a video signal from on an board camera in a mobile object (e.g., a race car) as it moves along a race track. Each of first and second receivers receive a transmitted video signal output from the mobile object on a carrier frequency. Separately, the system includes a position detector that generates a position signal indicative of a position of the mobile object. The position signal is generated using indications other than the received video signal and the carrier that is transmitted by the mobile object.

A controller located separate from the mobile object selects one of the video signals received by the first of the first and second receivers in response to the position signal. The controller then outputs the video signal received by the second of the first and second receivers in response to change in the position as the mobile object moves along the race track. Independent method claim 12 is directed to a method of communicating the video

signal including the steps of generating a video signal with an on board video camera on a mobile object, transmitting the video signal, receiving the video signal at first and second receivers, determining the mobile object location using indications other than the signal parameters of the received video signal or its carrier, and selecting the first or second receiver for output at a stationary location based on the determined mobile object location.

In the final Office Action, claims 1, 2, 5-12 and 18-20 were rejected under 35 U.S.C. § 102(b) as being anticipated by Japanese Laid Open Patent Appl. JP 60-246190 to Yasuyuki et al.; and claims 3 and 4 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Yasuyuki et al. in view of Applicants' Admitted Prior Art (AAPA). The Examiner has issued an Advisory Action stating Applicant's reply of April 8, 2008 does not overcome the rejection from the final Office Action. These rejections are respectfully traversed.

Independent claim 1 recites, among other things:

> *a position detector for generating a position signal indicative of the position of said mobile object using indications other than parameters of the received video signal and carrier as the mobile object moves around the race track; and*
>
> *a controller located other than in the mobile object for selecting and outputting the video signal received by the first of the first and second receivers in response to the position signal and for thereafter selecting and outputting the video signal received by the second of the first and second receivers in response to change in the position signal as the mobile object moves around the track.*

In Applicant's reply of April 8, 2008 to the final Office Action, Applicants included an English translation of Yasuyuki as an Attachment. Yasuyuki et al. discloses a system for transmitting television pictures from a mobile car to a central location via microwave beams to a plurality of fixed antennas. The video signal from the mobile car can be picked up by two of the fixed antennas, which provide the received signal to the central location. At the central location, errors in a synchronizing signal and a burst signal are detected, and one of the two received signals is selected on the basis of the detected errors. In other words, Yasuyuki depends on signal quality of the received signals to determine which signal to use.

Yasuyuki et al. describes a scheme that corresponds to a conventional approach for receiving video from a moving car via plural receivers, in which when the same signal is received at two or more receivers, qualities of the received signal are considered in order to determine which one of received signals (e.g., the signal received by receiver #1 or the signal

received by receiver #2) is to be used. In the second paragraph on page 4 of the English attached language translation, which refers to Figure 2 of that reference, it states that "there are limits to forecasting and switching when, as described here, there are rapid changes in the micro signal receiver function over short distances and it is clear that the present invention can alleviate the workload of the switch operator and prevent major issues." Thus, it is clear that Yasuyuki et al. teaches away from the presently claimed invention by suggesting that the solution to errors in manual location-based switching is via automated switching based on signal quality. In contrast, independent claim 1 recites that a controller selects and outputs the video signal received by one of the first and second receives in response to the position signal indicative of the mobile object position and in response to change in the position signal as the mobile object moves around a race track. The position signal is obtained using indications other than the parameters of the received video signal. Analogously, the "determining the location" and the "selecting" steps of independent method claim 12 are not met by Yasuyuki. The present application also discusses the problems with simply relying on signal strength to determine which signal to choose. *See* present specification at pages 8-9.

The final Office Action points to base station 7 as corresponding to the position detector that generates the position signal. But, nothing in Yasuyuki indicates that the base station 7 generates a position signal, much less using indications other than the parameters of the received signals. Moreover, given that Yasuyuki uses signal quality of the received video signals to determine which signal to choose, Yasuyuki clearly does not use the position signal to select the appropriate video signal, as recited in claims 1 and 12.

The Advisory Action mailed May 2, 2008 asserts that "the positions of the two receivers transmitting the signals [in Yasuyuki] are interpreted as the position signals indicative of the mobile-object position in its broadest reasonable interpretation, consistent with applicant's own specification." While the Advisory Action does not state what portion of "applicant's own specification" the examiner might be relying on, the Examiner could possibly be referring to page 9, lines 7-13 of the specification, which states that "there are a number of alternative ways of determining position. . . . [such as] by utilizing the stations themselves to determine the distance from the car." However, this portion of the specification indicates that the receiver may have the structure for determining the position of a mobile object. It does not mean that any signal from the station is thereby deemed a

position signal under the claims. This disclosure does not have any bearing on whether Yasuyuki discloses position signals indicative of a mobile-object position.

Furthermore, independent claims 1 and 12 clearly recite that *a position signal indicative of the position of said mobile object is generated using indications other than parameters of the received video signal and carrier as the mobile object moves around the race track (emphasis added).* In this instance, the Advisory Action seems to be relying specifically on the video signal and carrier itself for providing the alleged position signal. However, nowhere does the Advisory Action point to a position signal indicating position using indications other than the parameters of the received video signal and carrier.

Still further, Yasuyuki et al. teaches away from the presently claimed system and method of claims 1 and 12 in the paragraph bridging pages 5 and 6 of the English language translation of Yasuyuki et al. Namely, the second sentence of that bridging paragraph states that "The main features of the entire base station described above are that criteria [for switching signals] are established using only the video signals and so there is no need to switch anything but the main line video, and that any transmission path may be introduced between the micro signal receiver and the switch (SW_1)." Furthermore, Figure 4 of Yasuyuki et al., which is said to be a "logic table for switching control in Figure 3", contains only criteria relating to the detected signals. Thus, Yasuyuki et al. teaches away from using a position signal and changes in the position signal for determining which of video signals received by a first receiver and a second receiver is to be output.

In contrast to the disclosure of Yasuyuki et al., which is directed to examining the signal quality of received signals, the present system and method provides for automation of location-based switching which avoids problems where a measure of signal quality used to determine whether or not to perform switching does not correctly indicate the better picture. Also, the present invention in claims 1 and 12 avoids delay inherent in signal quality measurement, enabling faster switching and therefore accommodating faster moving vehicles.

Therefore, independent claims 1 and 12 patentably distinguish over Yasuyuki et al.

The dependent claims are patentable for at least the reasons noted for the independent claims. Still further, with respect to dependent claim 7, that claim recites that the position detector determines the position of the mobile object based on information provided by a timing system of the race track. In its rejection of claim 7, the Office Action incorrectly

asserts that "the position detector 7 determines the position of the mobile object 6 based on information provided by a timing system of the race track (e.g. between μ_1 and μ_2)." Rather, base station 7 receives signals from first to fifth microwave signal receives 1 to 5, and determines, based on signal quality of those received signals, which one of those is to be output as a video signal. As clearly described on page 4 of the English translation of Yasuyuki et al., **frequency μ_1 is the frequency transmitted by the first microwave signal receiver 1, and μ_2 is the frequency transmitted by the second microwave signal receiver 2, whereby this has nothing at all to do with a timing system of a race track as in claim 7.** In a reply to the final Office Action, the Examiner was respectfully requested to show where Yasuyuki actually discloses a timing system providing the noted information, but such a showing was not provided in the Advisory Action.

Accordingly, dependent claim 7 patentably distinguishes over the cited art of record for these additional reasons, beyond the reasons given above for its base claim 1.

Lastly, with respect to dependent claim 10, which recites features of a network comprising first and second signal lines, Yasuyuki et al. does not disclose, teach or suggest such features of a network. In more detail, the solid and dashed lines shown in Figure 2 of Yasuyuki et al. represent microwave signal paths, whereby each of the receivers 2 and 3 is connected to base station 7 by its own respective signal line. Thus, the receiver 2 of Yasuyuki et al. cannot be selectively connectable to either a first signal line, a second signal line, or neither of the first or second signal lines, as explicitly recited in claim 10 (the same is true for receiver 1 of Yasuyuki et al.). For example, see the signal line connectivity shown in Figure 5 of the drawings of the present application, whereby such "selectable" connectivity is not disclosed, taught or suggested by Yasuyuki et al. The Advisory Action did not address these points as to dependent claim 10.

Accordingly, dependent claim 10 patentably distinguishes over the cited art of record for these additional reasons, beyond the reasons given above for its base claim 1.

Respectfully submitted,

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